

FINAL DECISION

AusNet Services distribution determination

2016 to 2020

Attachment 11 – Service target performance incentive scheme

May 2016

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1. Note
2. This attachment forms part of the AER's final decision on AusNet Services' distribution determination for 2016–20. It should be read with all other parts of the final decision.
3. The final decision includes the following documents:
4. Overview
5. Attachment 1 – Annual revenue requirement
6. Attachment 2 – Regulatory asset base
7. Attachment 3 – Rate of return
8. Attachment 4 – Value of imputation credits
9. Attachment 5 – Regulatory depreciation
10. Attachment 6 – Capital expenditure
11. Attachment 7 – Operating expenditure
12. Attachment 8 – Corporate income tax
13. Attachment 9 – Efficiency benefit sharing scheme
14. Attachment 10 – Capital expenditure sharing scheme
15. Attachment 11 – Service target performance incentive scheme
16. Attachment 12 – Demand management incentive scheme
17. Attachment 13 – Classification of services
18. Attachment 14 – Control mechanisms
19. Attachment 15 – Pass through events
20. Attachment 16 – Alternative control services
21. Attachment 17 – Negotiated services framework and criteria
22. Attachment 18 – f-factor scheme

1. Contents

[Note 11-2](#_Toc451529086)

[Contents 11-3](#_Toc451529087)

[Shortened forms 11-5](#_Toc451529088)

[11 Service target performance incentive scheme 11-7](#_Toc451529089)

[11.1 Final decision 11-7](#_Toc451529090)

[11.2 Our preliminary decision 11-9](#_Toc451529091)

[11.3 AusNet Services' revised proposal 11-10](#_Toc451529092)

[11.4 AER’s assessment approach 11-10](#_Toc451529093)

[11.4.1 Interrelationships 11-10](#_Toc451529094)

[11.5 Reasons for the final decision 11-11](#_Toc451529095)

[11.6 Applying the STPIS 11-11](#_Toc451529096)

[11.6.1 Revenue at risk 11-11](#_Toc451529097)

[11.6.2 Reliability of supply component 11-12](#_Toc451529098)

[11.6.3 Performance targets 11-12](#_Toc451529099)

[11.6.4 Incentive rates 11-13](#_Toc451529100)

[11.7 Reasons for not departing from our preliminary decision 11-14](#_Toc451529101)

[11.7.1 Value of customer reliability 11-14](#_Toc451529102)

[11.7.2 Relationship between VCR, reliability outcomes and performance targets 11-15](#_Toc451529103)

[11.8 Other considerations in applying the STPIS 11-21](#_Toc451529104)

[11.8.1 Adjusting the STPIS targets for the installation of rapid earth fault current limiters 11-21](#_Toc451529105)

[11.8.2 Adjusting the STPIS targets for the benefits of smart meters 11-22](#_Toc451529106)

[11.8.3 Adjusting the performance targets for animal proofing capex and Automatic Circuit Reclosers that affect reliability 11-24](#_Toc451529107)

[11.8.4 Amending the STPIS exclusion criterion to account for interruptions caused by REFCL devices 11-25](#_Toc451529108)

[11.8.5 Consumer challenge panel submission 11-27](#_Toc451529109)

[11.8.6 Value for customer reliability for the purpose of calculating the incentive rates 11-27](#_Toc451529110)

[11.9 Transitional arrangements for the STPIS 11-28](#_Toc451529111)

[11.9.1 Adjusting the S-factor between regulatory control periods 11-28](#_Toc451529112)

[11.9.2 Accounting for revenue increments decrements between regulatory periods 11-29](#_Toc451529113)

[11.9.3 Closing out of the ESCV’s service performance scheme 11-29](#_Toc451529114)

1. Shortened forms

| Shortened form | Extended form |
| --- | --- |
| AEMC | Australian Energy Market Commission |
| AEMO | Australian Energy Market Operator |
| AER | Australian Energy Regulator |
| AMI | Advanced metering infrastructure |
| augex | augmentation expenditure |
| capex | capital expenditure |
| CCP | Consumer Challenge Panel |
| CESS | capital expenditure sharing scheme |
| CPI | consumer price index |
| DRP | debt risk premium |
| DMIA | demand management innovation allowance |
| DMIS | demand management incentive scheme |
| distributor | distribution network service provider |
| DUoS | distribution use of system |
| EBSS | efficiency benefit sharing scheme |
| ERP | equity risk premium |
| Expenditure Assessment Guideline | Expenditure Forecast Assessment Guideline for Electricity Distribution |
| F&A | framework and approach |
| MRP | market risk premium |
| NEL | national electricity law |
| NEM | national electricity market |
| NEO | national electricity objective |
| NER | national electricity rules |
| NSP | network service provider |
| opex | operating expenditure |
| PPI | partial performance indicators |
| PTRM | post-tax revenue model |
| RAB | regulatory asset base |
| RBA | Reserve Bank of Australia |
| repex | replacement expenditure |
| RFM | roll forward model |
| RIN | regulatory information notice |
| RPP | revenue and pricing principles |
| SAIDI | system average interruption duration index |
| SAIFI | system average interruption frequency index |
| SLCAPM | Sharpe-Lintner capital asset pricing model |
| STPIS | service target performance incentive scheme |
| WACC | weighted average cost of capital |

# Service target performance incentive scheme

Under clause 6.3.2 of the National Electricity Rules our regulatory determination must specify how any applicable service target performance incentive scheme (STPIS) is to apply in the next regulatory control period.

This attachment sets out how we will apply the STPIS to AusNet Services for the   
2016–20 regulatory control period.

AER’s service target performance incentive scheme

We published the current version of our national STPIS in November 2009.[[1]](#footnote-2) The STPIS is intended to balance incentives to reduce expenditure with the need to maintain or improve service quality. It achieves this by providing financial incentives to distributors to maintain and improve service performance where customers are willing to pay for these improvements.

## Final decision

Our final decision is to apply the STPIS to AusNet Services for the 2016–20 regulatory control period in the following manner:

* set revenue at risk for AusNet Services at the range ± 5.0 per cent
* segment AusNet Services' network according to feeder categories urban, short and long rural
* apply reliability of supply parameters of:
* system average interruption duration index (SAIDI)
* system average interruption frequency index (SAIFI)
* momentary interruption frequency index event (MAIFI)
* customer service (telephone answering).
* set performance targets based on the AusNet Services' average performance over the past five regulatory years
* apply the methodology indicated in the national STPIS for excluding specific events from the calculation of annual performance targets
* apply the methodology and value of customer reliability (VCR) values to the calculation of incentive rates using the latest VCR for Victoria
* not apply the STPIS guaranteed service level scheme (GSL) because AusNet Services must comply with the Victorian jurisdictional GSL scheme.

In making our final decision on the application of STPIS, we have taken into account our preliminary decision, framework and approach paper, AusNet Services’ regulatory proposals, our information requests to AusNet Services and submissions raised by stakeholders. Our response to the matters raised by AusNet Services and stakeholders about the application of the STPIS are also discussed in this final decision.

We have not departed from our preliminary decision on the application of the STPIS to apply to AusNet Services because it has not made the case in order for us to do so. Our reasoning is provided in sections 11.7 and 11.8.

Table 11.1 and Table 11.2 outline our final decision on the applicable incentives rates and performance targets that will be applied to AusNet Services’ STPIS for 2016–20. The incentive rate for the customer service component will be -0.040 per cent per unit of the telephone answering parameter.[[2]](#footnote-3)

Table 11.1 Final decision—STPIS incentive rates for AusNet Services for the 2016–20 regulatory period

|  |  |  |  |
| --- | --- | --- | --- |
|  | Urban | Short rural | Long rural |
| SAIDI | 0.0207 | 0.0161 | 0.0074 |
| SAIFI | 1.5872 | 1.4396 | 0.6618 |
| MAIFI | 0.1270 | 0.1152 | 0.0529 |

Source: AER Analysis.

Table 11.2 Final decision—STPIS reliability targets for AusNet Services for the 2016–20 regulatory period

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Measure | 2016 | 2017 | 2018 | 2019 | 2020 |
|  |  |  |  |  |  |
| Unplanned SAIDI - urban | 81.539 | 81.218 | 80.897 | 80.577 | 80.256 |
| Unplanned SAIDI - short rural | 188.049 | 187.593 | 187.138 | 186.682 | 186.226 |
| Unplanned SAIDI - long rural | 233.977 | 233.356 | 232.736 | 232.116 | 231.496 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Unplanned SAIFI - urban | 1.099 | 1.093 | 1.088 | 1.082 | 1.077 |
| Unplanned SAIFI - short rural | 2.291 | 2.284 | 2.276 | 2.269 | 2.261 |
| Unplanned SAIFI - long rural | 2.829 | 2.819 | 2.810 | 2.801 | 2.792 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Unplanned MAIFI - urban | 2.796 | 2.794 | 2.792 | 2.790 | 2.788 |
| Unplanned MAIFI - short rural | 5.825 | 5.819 | 5.814 | 5.808 | 5.803 |
| Unplanned MAIFI - long rural | 11.374 | 11.368 | 11.362 | 11.356 | 11.350 |
| Telephone answering parameter  (measured as a percentage in STPIS) | 80.330 | 80.330 | 80.330 | 80.330 | 80.330 |

Source: AER analysis.

## Our preliminary decision

Our preliminary decision applied the national STPIS to AusNet Services except for the guaranteed service level component.[[3]](#footnote-4) It also applied AEMO's latest VCR in setting the incentive rates for AusNet Services.[[4]](#footnote-5)

The preliminary decision considered that AusNet Services:

* STPIS targets should not be lowered to account for the current VCR and
* the scheme should not be amended to include an additional exclusion criterion for the operation of rapid earth fault current limiters.[[5]](#footnote-6)

## AusNet Services' revised proposal

AusNet Services' revised regulatory proposal rejected our preliminary decision on its STPIS target and incentive rates. It raised a number of interrelated issues for our consideration. Primarily, AusNet Services reiterated that applying a lower VCR to capex has implications on reliability and as such the STPIS should be modified to reflect this change.[[6]](#footnote-7)

AusNet Services’ revised regulatory proposal also submitted that we should vary the scheme to allow outages caused by the operations of rapid earth fault current limiters (REFCLs) to be excluded from the STPIS outcomes.[[7]](#footnote-8)

Section 11.7 below sets out our considerations on the matters submitted.

## AER’s assessment approach

We are required to make a decision on how the STPIS is to apply to AusNet Services.[[8]](#footnote-9) When making a distribution determination, the STPIS requires us to determine all performance targets, incentive rates, revenue at risk and other parameters under the scheme.[[9]](#footnote-10)

We outlined our proposed approach to, and justification for, the application of the STPIS in our F&A and preliminary decisions for Victorian electricity distributors. Our final decision is consistent with the position in the preliminary decision and F&A, unless new information has become available or new arguments have been put forward which warrants a reconsideration of this position. We have considered materials submitted to us by AusNet Services and by stakeholders.

### Interrelationships

In applying the STPIS we must consider any other incentives available to the distributor under the NER or relevant distribution determination.[[10]](#footnote-11) One of the objectives of the STPIS is to ensure that the incentives are sufficient to offset any financial incentives the distributor may have to reduce costs at the expense of service levels.[[11]](#footnote-12) For the 2016–20 regulatory control period, the STPIS will interact with the Capital Expenditure Sharing Scheme (CESS) and the opex Expenditure Benefit Sharing Scheme (EBSS).

The reward and penalty amounts (the incentive rates) under STPIS are determined based on the average customer value for the improvement, or otherwise, to supply reliability (the VCR). This is aimed at ensuring that the distributor’s operational and investment strategies are consistent with customers’ value for the services that are offered to them.

Our capex and opex allowances are set to reasonably reflect the expenditures required by a prudent and efficient business to achieve the capex and opex objectives. These include complying with all applicable regulatory obligations and requirements and, in the absence of such obligations, maintaining quality, reliability, and security outcomes.

The STPIS on the other hand provides an incentive for distributors to invest in further reliability improvements (via additional STPIS rewards) where customers are willing to pay for it. Conversely, the STPIS penalises distributors where they let reliability deteriorate. Importantly, the distributor will only receive a financial reward after actual improvements are delivered to the customers.

In conjunction with CESS and EBSS, the STPIS will ensure that:

* any additional investments to improve reliability are based on prudent economic decisions
* reductions in capex and opex are achieved efficiently, rather than at the expense of service levels to customers.

## Reasons for the final decision

The following section sets out our detailed consideration on:

* applying the STPIS to AusNet Services for the 2016–20 regulatory control period
* transitional matters in the applying the STPIS between regulatory control periods.

## Applying the STPIS

We will apply the scheme as is to AusNet Services' STPIS for the 2016–20 regulatory control period. This is consistent with our preliminary decision on STPIS for AusNet Services. For the reasons outlined in section 11.7 we have not accepted AusNet Services' proposal to depart from our preliminary decision on STPIS.[[12]](#footnote-13)

### Revenue at risk

Our final decision is to apply our preliminary decision. The revenue at risk cap for each regulatory year in 2016–20 is ± 5.0 per cent as per the scheme standard for AusNet Services. Within this revenue at risk cap, there is also a cap on the revenue at risk of ± 0.5 per cent for the telephone answering parameter.

### Reliability of supply component

Applicable components and parameters

We will apply unplanned SAIDI, unplanned SAIFI and MAIFI parameters under the reliability of supply component to AusNet Services' urban, short and long rural feeders in 2016–20. Unplanned SAIDI measures the sum of the duration of each unplanned sustained customer interruption (in minutes) divided by the total number of distribution customers. Unplanned SAIFI measures the total number of unplanned sustained customer interruptions divided by the total number of distribution customers. MAIFI captures the average number of ‘momentary’ disruptions on the network.

Exclusions

The STPIS allows certain events to be excluded from the calculation of the S-factor revenue adjustment. These exclusions include events that are beyond the control of AusNet Services.[[13]](#footnote-14) They also exclude the effects of extreme weather events that have the potential to significantly affect AusNet Services' STPIS performance.

The major event day (MED) threshold for exclusions will be calculated in accordance the STPIS using the 2.8 beta[[14]](#footnote-15) method.[[15]](#footnote-16) This is consistent with our preliminary decision for AusNet Services.

### Performance targets

The STPIS specifies that the performance targets should be based on the average performance over the past five regulatory years. It also states that the performance targets must be modified for any reliability improvements completed or planned where the planned reliability improvements are:[[16]](#footnote-17)

* included in the expenditure program proposed by the distributor in its regulatory proposal, or
* proposed by the distributor, and the cost of the improvements is allowed by the relevant regulator, in the distributor's previous regulatory proposal or regulatory submission, and
* expected to result in a material improvement in supply reliability.

AusNet Services proposed to set the performance targets based on historical averages as per the scheme but, with modification, because of the application of a lower VCR for capex planning purposes.

Our discussion and reasoning about the application of the VCR on the STPIS is outlined section 11.7. Consistent with our reasoning in that section, we have not accepted AusNet Services' proposal to depart from the scheme. That is, AusNet Services’ performance targets will be based on its five year historical average.

The national STPIS customer service target applicable to AusNet Services is telephone response measured as the percentage of telephone calls answered within 30 seconds. This measure is referred to as the telephone Grade of Service (GOS).

We have adjusted AusNet Services reliability targets to account for the reliability improvement due to animal proofing capex in accordance with the STPIS (see section 11.8.3). Our calculated performance targets for AusNet Services for the 2016–20 regulatory control period are presented in Table 11.3.

Table 11.3 Final decision—STPIS reliability targets for AusNet Services for the 2016–20 regulatory period

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Measure | 2016 | 2017 | 2018 | 2019 | 2020 |
|  |  |  |  |  |  |
| Unplanned SAIDI - urban | 81.539 | 81.218 | 80.897 | 80.577 | 80.256 |
| Unplanned SAIDI - short rural | 188.049 | 187.593 | 187.138 | 186.682 | 186.226 |
| Unplanned SAIDI - long rural | 233.977 | 233.356 | 232.736 | 232.116 | 231.496 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Unplanned SAIFI - urban | 1.099 | 1.093 | 1.088 | 1.082 | 1.077 |
| Unplanned SAIFI - short rural | 2.291 | 2.284 | 2.276 | 2.269 | 2.261 |
| Unplanned SAIFI - long rural | 2.829 | 2.819 | 2.810 | 2.801 | 2.792 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Unplanned MAIFI - urban | 2.796 | 2.794 | 2.792 | 2.790 | 2.788 |
| Unplanned MAIFI - short rural | 5.825 | 5.819 | 5.814 | 5.808 | 5.803 |
| Unplanned MAIFI - long rural | 11.374 | 11.368 | 11.362 | 11.356 | 11.350 |
| Telephone answering parameter  (measured as a percentage in STPIS) | 80.330 | 80.330 | 80.330 | 80.330 | 80.330 |

Source: AER analysis.

### Incentive rates

The incentive rates applicable to AusNet Services have been calculated in accordance with clause 3.2.2 and using the formulae provided as appendix B of the STPIS. Our final decision on AusNet Services' incentive rates are presented in Table 11.4. Our preliminary decision incorrectly utilised AusNet Services' total energy consumption instead of average energy consumption to calculate the incentive rates. This final decision has corrected this error by using AusNet Services' average energy consumption to calculate the incentive rates.

Table 11.4 Final decision—STPIS incentive rates for AusNet Services for the 2016–20 regulatory period

|  |  |  |  |
| --- | --- | --- | --- |
|  | Urban | Short rural | Long rural |
| SAIDI | 0.0207 | 0.0161 | 0.0074 |
| SAIFI | 1.5872 | 1.4396 | 0.6618 |
| MAIFI | 0.1270 | 0.1152 | 0.0529 |

Source: AER Analysis

The incentive rate for the customer service component will be -0.040 per cent per unit of the telephone answering parameter.[[17]](#footnote-18)

## Reasons for not departing from our preliminary decision

### Value of customer reliability

In both its regulatory and revised regulatory proposals, AusNet Services' stated that its performance targets should be lowered as a result of the change in VCR value.[[18]](#footnote-19)

This section will first explain the value of customer reliability in order to conceptualise the issues raised by AusNet Services and then our consideration of its proposed change. The VCR represents, in dollar terms, the willingness of customers to pay for the reliable supply of electricity. The values are typically derived from customer surveys.

The outcome of the survey (VCR) can then be applied for use in incentive regulation, planning and operational purposes in the National Electricity Market. In network planning, the VCR may be used by electricity distributors to assess the economic merits of carrying out additional investment to manage the level of energy at risk in the electricity network. It is therefore important the VCR figures accurately reflect the value of reliability across a range of customers. The VCR is also used to set the incentive rates under the STPIS. A lower VCR reduces the reward and penalty under the scheme, whereas a higher VCR increases them.

In 2014, the Australian Energy Market Operator (AEMO) carried out a review of the VCR. The intention of this review was to improve the understanding of the level of reliability that customers expect by producing a range of VCR values for residential and business customers across the national electricity market.[[19]](#footnote-20)

As a result of the AEMO review, the Victorian composite VCR was significantly reduced to $39.50 per kWh ($ 2014), a reduction of approximately 40 per cent, from the STPIS scheme specification value of $63.09 per kWh ($ 2014). The actual VCR for setting the STPIS incentive rates for the 2011–15 period is $54.92 per kWh ($ 2014).

AusNet Services' regulatory and revised regulatory proposals, applied the latest VCR to assess capex but outlined we should relax its performance targets to account for a lower VCR.[[20]](#footnote-21) AusNet Services stated, amongst other things, that if a lower VCR is adopted by us, the reliability of its networks will decline.

Put simply, AusNet Services submitted that a lower VCR will result in less monetary value being attributed to the energy associated with supply interruptions that cannot be serviced should parts of its networks fail (energy at risk). Hence, augmentation projects will be implemented later than otherwise. It also stated that the lower VCR will also cause certain station rebuilds (replacement capex) to become economically unjustified.[[21]](#footnote-22)

### Relationship between VCR, reliability outcomes and performance targets

The STPIS states that performance targets must be based on average performance over the past five regulatory years. However, distributors may seek a variation in targets as long as they are in accordance with the scheme.[[22]](#footnote-23)

AusNet Services' revised regulatory proposal submitted reliability performance will be affected due to the capex deferrals from a lower VCR. It also stated that, while the incentive rates reflect the revised VCR, the STPIS targets do not. As such, the incentive scheme itself is inherently inconsistent. Further, we should allow higher capex if customers want the current level of reliability to be maintained.[[23]](#footnote-24)

We do not agree with AusNet Services' submission, because the VCR is just one of the many parameters (for example, asset condition, asset age, level of energy at risks etc) used in planning asset replacement or augmentation. AusNet Services' regulatory proposal outlined that it will defer over $140 million ($2014) of capital expenditure as a result of the applying the new VCR in its planning and risk assessments but sought funding for them anyway.[[24]](#footnote-25) Our estimates of the efficient level capex in this final decision provided an allowance to maintain reliability. It is up to an efficient business in AusNet Services' circumstances to allocate capex to mitigate the reliability of supply risk.

Further, we consider that AusNet Services has not demonstrated that departing from our preliminary decision on the application of the STPIS is reasonable or necessary because:

1. The VCR has varied between years but there has been no net movement in its value between previous (2006–10 and 2011–2015) regulatory periods, and forthcoming (2016–20) regulatory control periods, for the purpose of setting STPIS targets. That is, the VCR value in 2010 is almost identical to that in 2016.
2. There appears to be limited or clear co-relation between the VCR and AusNet Services reliability outcomes.
3. AusNet Services did not seek an upward adjustment to tighten the STPIS targets for the current period (2011–15) when the VCR rose from the previous (2006–10) period.

These points are addressed below.

No variation in the VCR between the previous and the forthcoming regulatory periods

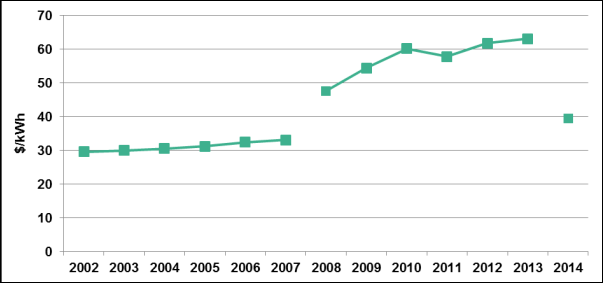
There has been no net movement in the value of the VCR between the two regulatory periods commencing in 2006 and 2011 respectively (see Figure 11.1), for the purpose of setting STPIS targets:

* In the 2006–10 determination (by the Essential Services Commission of Victoria), a VCR of $39.46 per kWh ($ 2014) was used as the basis for setting the incentive rates of the previous Victorian equivalent of the STPIS.[[25]](#footnote-26)
* In the 2011–15 distribution determination, a VCR of $54.92 per kWh   
  ($ 2014) was used to calculate the incentive rates. However, the performance targets for the 2011–15 period were based on the actual performance outcomes of the 2006–10 period when the VCR was $39.46 per kWh ($ 2014) without adjustments.
* The most recent study by AEMO indicates that the Victorian state-wide VCR is now $39.50 per kWh ($ 2014)––practically at the same level as the 2006–10 period.

AusNet Services revised regulatory questioned the relevance of the above points and stated that the schemes applied in 2006–10 were different to those 2011–15.

We do not agree with this submission. We consider that, while the scheme in name may be different, the application of the scheme and the scheme design are essentially the same. The scheme applied in the 2006–10 regulatory control period was developed by the ESCV while the scheme applied in 2011–15 was developed by us. However, the STPIS targets applied to AusNet Services in 2011–15 was based on its 5 years' historical average performance in 2006–10 (slightly adjusted for difference in how major events are excluded from the performance calculation) with a VCR of $39.46 per kWh ($ 2014). As such, there has been no net movement in the value of the VCR between the two regulatory periods commencing in 2006, for the purpose of setting STPIS targets because it was carried forward into 2011–15 by the historical reliability performance level.

Figure 11.1 Historical Victorian VCR (nominal)



Source: AusNet Services, Regulatory proposal 2016–20, 30 April 2015, p. 120.

Our determinations for NSW, ACT, QLD and SA distributors did not vary the STPIS targets due to a change in VCR.

Limited relationship between VCR and reliability outcomes

The STPIS states that performance targets must be based on average performance over the past five regulatory years.[[26]](#footnote-27) As stated above, AusNet Services' revised regulatory proposal submitted that we should modify its performance targets to reflect the lower VCR for capex planning purposes.

We consider that performance targets for the next regulatory period should not be modified due to a change in the VCR. Similar to our preliminary decision, our review of AusNet Services' regulatory proposal found little evidence to suggest that the value of the VCR will impact on reliability immediately as claimed.[[27]](#footnote-28) AusNet Services asserts that applying a lower VCR for capex purposes will result in a decline in reliability in the next regulatory period. Contrary to the above assertion concerning the effect of VCR on reliability performance, AusNet Services attributed its improved reliability performance in the current regulatory period to other factors (see below) and not to the increase in the VCR value (see Figure 11.2 and Figure 11.3).

As such, we consider that the improvement is more likely due to the higher level of incentives approved for AusNet Services in the current period (higher than the normal STPIS scheme standard of ± 7.0 per cent revenue at risk; and a 2.8 beta threshold for major event day (MED) exclusion level––the higher the beta the lesser the number of MED events that can be excluded and a higher level of accountability on the distributor’s performance outcome). In effect the scheme was adjusted to provide both higher incentive rates and revenue at risk (greater rewards and penalties) over the current period.

We note that, in its published planning report and regulatory proposal capex overview, AusNet Services attributed the reliability improvement of its SAIDI measures to smart asset management and investment in feeder automation, installation of automatic circuit recloser and animal proofing measures. These measures demonstrate that AusNet Services have invested more to respond to the STPIS incentive by improving network operational arrangements, rather than addressing network capacity shortfalls. Put simply, these measures have little connection to the level of energy at risk (the energy at risk is used as a basis on whether to augment the network or to some extent replace assets).[[28]](#footnote-29)

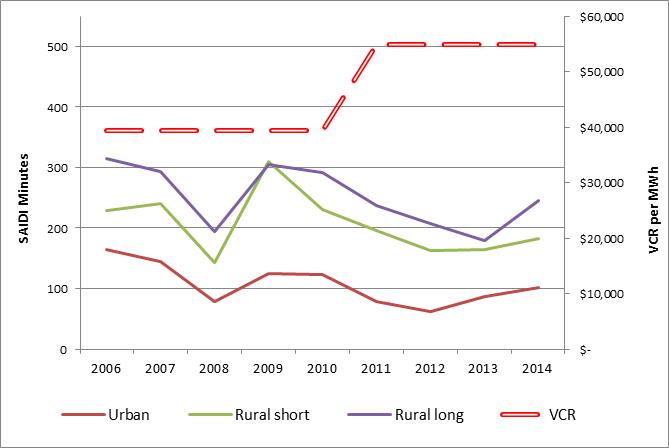
AusNet Services also contend that a lower VCR will also have impact on its asset replacement capex.[[29]](#footnote-30) We disagree with the contention that replacement capex will be materially affected by a lower VCR. We consider that the prime driver for asset replacement is the physical condition of that asset and to a certain extent, the trade-off between capex and opex.

Further, we reviewed the reliability performance outcomes of the other three distributors in our preliminary decision––CitiPower, Powercor and United Energy––who also sought similar adjustments to their performance targets. We also found little evidence to suggest that the VCR will have an immediate impact on reliability for these three distributors.[[30]](#footnote-31)

We consider that AusNet Services’ reliability performance is more likely to be influenced by other factors, other than the VCR, such as the configuration and condition of its network assets. Further, most network assets have an expected life in excess of 50 years, therefore, by discounting for uncontrollable external impacts such as material weather events, AusNet Services' reliability level should not change abruptly with a lower VCR for planning purposes.

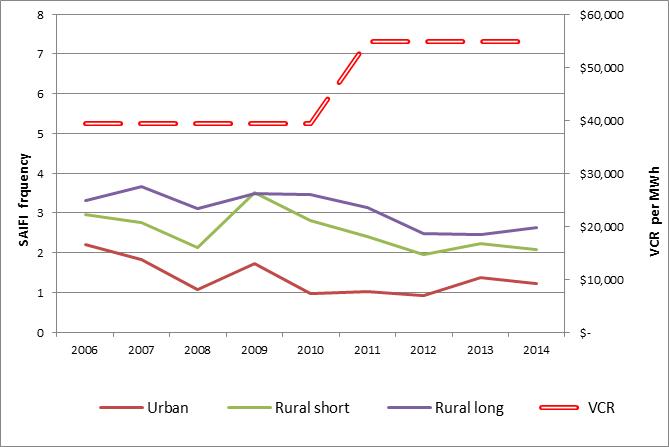
As such we consider that AusNet Services has not demonstrated that its assertion that reliability will decline in the next regulatory period is due to a lower VCR.

Figure 11.2 Historical SAIDI



Source: AER analysis.

Figure 11.3 Historical SAIFI



Source: AER analysis.

Inconsistency between incentive rates, performance targets and VCR

AusNet Services' revised regulatory proposal stated the reduced VCR used to assess its capex in 2016-20 is inconsistent with STPIS targets. It stated that it would lead to distortions in the incentive framework. Further, if the incentive rates reflect the revised VCR, but the STPIS targets do not, the incentive scheme itself is inherently inconsistent.

We observe that there is asymmetry in AusNet Services' submission, as our regulatory determination in 2011–15 was made on the same basis, that is, no adjustment of the performance targets because of a change in VCR between 2008 and 2011.[[31]](#footnote-32) That said, we consider that adjusting the performance targets immediately to account for a movement in the VCR is not appropriate because the reliability effects of the changes should be gradual, likely to be over a long period of time—for example over 60 years as submitted by CitiPower and Powercor[[32]](#footnote-33) and AusNet Services transmission.[[33]](#footnote-34),

AusNet Services' revised regulatory proposal also submitted that our preliminary decision stated that there is no correlation between the VCR and reliability. It reiterated that its capex deferrals as a result of a lower VCR will result in lower reliability performance compared to historical levels.

In light of the above (demonstrating that the VCR has limited effect on AusNet Services' reliability performance), we consider that AusNet Services has not made the case that supply reliability level will change immediately after the VCR value is changed.

Furthermore, this final decision has provided AusNet Services with an efficient expenditure allowance to maintain reliability (please refer to the capex attachment in this final decision for further details).

Even if its reasoning were proven, since the VCR is now back to the previous level, such adjustment to STPIS performance targets is not required––as there should have been a previous equal and opposite adjustment for the 2011–15 performance targets. Hence, AusNet Services will be financially neutral for the proposed STPIS.

AusNet Services' revised regulatory proposal disputed a sentence in our preliminary decision that was inconsistent with other parts of the STPIS attachment. That sentence stated that "there is no correlation between VCR and reliability" as opposed to "there is limited correlation between VCR and reliability".

However, this does not change our view that AusNet Services' has not demonstrated that supply reliability will change immediately after the VCR value has changed.

We consider that the operation of the scheme as is, will not affect reliability performance in the short term. Hence no adjustment to the performance target is necessary. That said, we will review the scheme and consult stakeholders on whether or how the scheme is to be applied to reflect to reflect step changes in VCR over multiple regulatory control periods in the near future.

## Other considerations in applying the STPIS

### Adjusting the STPIS targets for the installation of rapid earth fault current limiters

The Victorian Government submission stated that there are reliability benefits associated with the installation of rapid earth fault current limiters (REFCLs)[[34]](#footnote-35) and that the AER must take into consideration any potential revenue increments that the distributor will receive under the STPIS.[[35]](#footnote-36)

Submissions by Victorian distributors (except for United Energy who provided no comment) disagreed with the Victorian Government. In summary, they stated that:

They do not anticipate a material improvement in supply reliability, in fact, they envisaged a possibility that reliability may deteriorate rather than improve as a result of the deployment of REFCL devices in the electricity distribution network.[[36]](#footnote-37)

AusNet Services submitted that it was inappropriate to assume any reliability benefits will result from the REFCL program because of the introduction and then integration of REFCL into AusNet Services network. Further, AusNet Services stated that the REFCL installation program will cause significant interruptions to customer supply, in the short term. It submits that these interruptions will be required to undertake network hardening and balancing, which requires disconnection and reconfiguration of the network at points along the entire length of the affected power lines.[[37]](#footnote-38)

On balance we consider that there is no evidence to suggest that reliability will improve because:

* AusNet Services intends to operate REFCL on total fire ban days and as such reliability will worsen rather than improve because of the operations of the devices.
* most REFCL devices are expected to be installed late in the 2016-20 regulatory control period therefore it is likely reliability benefits will be realised after 2020.[[38]](#footnote-39)
* there is some uncertainty about the precise impacts of REFCLs in the more immediate period on reliability such that precise adjustments to the scheme would be problematic.

### Adjusting the STPIS targets for the benefits of smart meters

Based on a report by Deloitte in 2011,[[39]](#footnote-40) the Victorian Government suggested that distributors’ historical 5-year average STPIS targets should be adjusted as result of the Advanced Metering Infrastructure (commonly known as smart meters) program. Specifically, the following benefits were identified in the Deloitte report:

* Reduction in unserved energy due to faster detection of outages and restoration times
* Low voltage network monitoring improvement benefits
* Rural and semi-rural area notification time improvement benefits
* Outage Management innovation benefits.

AusNet Services commented on the issue in its submission dated 4 February 2016 that:[[40]](#footnote-41)

* Deloitte’s estimated 5 per cent improvement to SAIDI target because of reduction in unserved energy due to faster detection of outages and restoration times are not supported by evidence.
* Deloitte’s estimated 5 per cent improvement to SAIDI target because the low voltage network monitoring improvement benefits was unrealistic. The realistic estimate of the improvement in faster detection of outages and restoration times which AMI meters can provide equates to approximately 0.4% of the annual Unplanned SAIDI since AMI meters became functional.
* Deloitte’s claim of 2 per cent improvement because of improvement to rural and semi-rural area notification time was unrealistic. Because notification of these outages is typically received through direct customer contact or SCADA system alerts, response and travel times are predominantly set by the distance between the affected circuit and the distributor’s nearest resources, and the time to repair and restore supply is determined by the information provided by fault crews, customers or emergency services on the nature of the network fault and by the speed of the distributor to divert material and resources from other works to the unplanned event.
* Deloitte’s claim of 1 per cent improvement because of improved Outage Management System innovation achieved by AMI data was not based on thorough quantitative analysis, despite acknowledging that “it is likely that given this additional information, innovative strategies will be developed over time to improve outage times. However, this additional benefit is difficult to quantify”. While AMI meters have the potential to create Outage Management System and other reliability benefits going forward, investment is required to realise these benefits. The deployment of AMI has not, and does not, automatically allow these benefits to be realised.

In consideration that only Jemena and AusNet Services achieved performance improvement in the last regulatory period, whereas the other three distributors––all achieved a very high rate of AMI implementation––did not report improvement in supply reliability, we consider that Deloitte’s 2011 estimate of supply reliability improvements are not supported by the reported evidence.

In light of the above, we consider there is insufficient evidence in order for us to adjust the performance for the effects of smart meters.

### **Adjusting the performance targets for animal proofing capex and** Automatic Circuit Reclosers **that affect reliability**

In its submission, the Victorian Government noted that we accepted capital expenditure of $57.1 million over the 2016–20 regulatory control period for more animal and bird proofing. It stated that the reliability benefits associated with this additional bird and animal proofing should also be taken into consideration in determining AusNet Services’ performance targets for the 2016–20 regulatory control period.[[41]](#footnote-42) It also stated that AusNet Services’ STPIS performance targets should be adjusted to account for the ‘material’ reliability benefits obtained from investments associated with the installation of Automatic Circuit Reclosers (ACRs) in 2011–15.

AusNet Services stated that the Victorian Government appears to have misunderstood the reliability impacts of the ACR upgrade program. ACRs have been upgraded on AusNet Services’ network to allow remote changes to operational settings for days of high bushfire risk. Prior to this upgrade the ACRs were configured to provide optimal reliability. Contrary to this submission, the use of upgraded ACRs will result in lower reliability due to longer duration outages because on days of high bushfire risk the reclose function will be suppressed to limit the risk of bushfire ignition. This means that in circumstances where previously outages were automatically restored, the outage will only be restored after manual inspection. For these reasons we consider an adjustment to the STPIS targets to account for the investment in ACRs during the 2011–15 regulatory period is not necessary.[[42]](#footnote-43)

However, there is merit in adjusting the STPIS targets for reliability improvements resulting from animal proofing capex for 2016–20. As the animal proofing program will significantly reduce the occurrence of network faults due to animal contacts, this capex will directly affect reliability. Hence, the performance targets should be adjusted to reflect the reliability improvements as per the scheme. This program was approved for safety reasons but the reliability benefits still need to be accounted for in the STPIS. Consequently, we requested AusNet Services to calculate the reliability benefits of this capex program and have adjusted the performance targets in this final decision.[[43]](#footnote-44) The adjustments are found below.

Table 11.5 Final decision—STPIS adjustments for animal proofing capex

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | | 2016 | 2017 | 2018 | 2019 | 2020 |
| Total sustained customer interruptions after removing excluded events |  |  |  |  |  |  |
| Urban | 0.2 | 0.5 | 0.8 | 1.1 | 1.4 |
| Short Rural | 0.2 | 0.7 | 1.1 | 1.6 | 2.0 |
| Long Rural | 0.3 | 0.9 | 1.6 | 2.2 | 2.8 |
|  |  |  |  |  |  |  |
| Total sustained customer interruptions after removing excluded events |  |  |  |  |  |  |
| Urban | 0.003 | 0.008 | 0.014 | 0.019 | 0.025 |
| Short Rural | 0.004 | 0.011 | 0.019 | 0.026 | 0.034 |
| Long Rural | 0.005 | 0.014 | 0.023 | 0.033 | 0.042 |
|  |  |  |  |  |  |  |
| Total sustained customer interruptions after removing excluded events |  |  |  |  |  |  |
| Urban | 0.001 | 0.003 | 0.005 | 0.007 | 0.009 |
| Short Rural | 0.003 | 0.008 | 0.014 | 0.019 | 0.025 |
| Long Rural | 0.003 | 0.009 | 0.015 | 0.021 | 0.026 |

Source: AusNet Services.

### Amending the STPIS exclusion criterion to account for interruptions caused by REFCL devices

AusNet Service proposed to add a new exclusion criterion to the scheme to exclude interruptions caused by the operation of REFCL devices from the STPIS performance calculation because it considered that the use of REFCLs is mandatory. The criteria is similar to a current exclusion for certain supply interruptions caused by the suppression of automatic reclose devices during total fire ban days.[[44]](#footnote-45)

The Victorian Government did not support the exclusion of the operation of REFCL devices or auto-reclose devices from the STPIS. It stated that distributors should be held to account for the reliability and safety of their networks under section 98 of the Electricity Safety Act 1998.[[45]](#footnote-46)

We sought AusNet Services to clarify the basis of this proposal, it advised that:[[46]](#footnote-47)

* Because of safety concerns, it does not intend to operate REFCLs in continuous compensation mode. For example, a fallen tree or vehicle impacting a pole may dislodge more than one live conductor.
* The REFCL will suppress the voltage of the conductor that touches the ground first. After the operation of REFCL, the other two phase conductor will remain energised, but at 70 percent above normal voltage. There is no guarantee that these other two phase conductors will remain at safe clearances to ground level––hence, a safety risk to the public.
* It intends to operate REFCLs on Total Fire Ban (TFB) days only. If a fault is not self-cleared within 1 minute, the normal protective device will trip off the feeder. After which, the feeder needs to inspected (line patrol) before power can be safety restored.
* Hence, AusNet Services proposed to modify the STPIS to exclude any interruptions to supply caused by the use of REFCL devices operating in this mode where the interruption occurs on a TFB or other non-TFB day as required by Energy Safe Victoria. The mode of operation of the REFCL devices will be in accordance with AusNet Services’ revised Bushfire Mitigation Plan, accepted by Energy Safe Victoria.
* This proposed exclusion for the operation of REFCL devices would be similar in operation to the current exclusion that applies only on TFB days relating to interruptions caused by the operation of automatic reclose devices.
* Currently, any event where the protection device is tripped to lockout while the reclose function is suppressed on a Total Fire Ban (TFB) day is claimed as an exclusion under clause 3.3(a)(7) of the STPIS.
* This mode of operation is in accordance with AusNet Services’ Bushfire Mitigation Plan as accepted by Energy Safe Victoria. In particular, section 11.2.3 of AusNet Services’ Bushfire Mitigation Plan requires that the auto reclose is suppressed and protection settings changed on designated ACRs on 22kV feeders in hazardous bushfire risk areas on TFB and Code Red days. This is also in accordance with the Powerline Bushfire Safety Taskforce Recommendations.

To qualify for an exclusion from the STIPIS on this basis, the interruption must meet the following criteria:

1. The event occurred on a TFB or Code Red day;

2. The device that operated (i.e. Circuit breaker, ACR) had its protection setting changed during the TFB or Code Red day;

3. The event occurred during the period when the device that operated (i.e. Circuit breaker, ACR) had its protection setting set for TFB or Code Red day operation; and

4. After line patrol no cause of the outage was found.

We consider outages caused by the operations of REFCL on TFB days in accordance with the Bushfire Mitigation Plan approved by ESV are similar to those caused by ACRs. Hence these two types of events should be treated in a similar manner. There is no need to modify the exclusion criteria of the scheme. This approach is consistent with our preliminary decision, that:

“Compliance with Electricity Safety Management Scheme is a regulatory obligation under Electricity Safety Act 1998 (Vic). The Bushfire Mitigation Plan forms part of an accepted Electricity Safety Management Scheme. This legislated requirement applies to the whole of AusNet Services' network.”

### Consumer challenge panel submission

The consumer challenge panel stated that deeper analysis is required of the preliminary decisions and the revised proposals, to ensure that there are no added costs which would lead to increased reliability.[[47]](#footnote-48)

As stated above, we have reviewed the reliability benefits from animal proofing and have removed these benefits from AusNet Services performance targets.

### Value for customer reliability for the purpose of calculating the incentive rates

We applied a proxy method to determine VCR to calculate the incentive rates for AusNet Services in our preliminary decision.[[48]](#footnote-49)

AusNet Services' revised regulatory proposal suggested that we apply its calculated VCR to determine the incentive rates. It stated that the data was based on the actual energy load classification specified in AEMO's assessment method.[[49]](#footnote-50)

Our final decision applied AusNet Services' derived VCR to calculate the incentive rates because its data and methodology is consistent with AEMO's method to calculate the VCR. We also note that there is little difference between our calculated VCR and AusNet Services.

## Transitional arrangements for the STPIS

This section addresses the following transitional issues relating to the STPIS:

* how we intend to adjust the S-factor between regulatory control periods
* how we intend to account for revenue increments or decrements resulting from the STPIS outcomes between regulatory control periods
* how we will close out Essential Services Commission service performance scheme for 2006–10.

### Adjusting the S-factor between regulatory control periods

The STPIS operates as part of the building block determination and is applied via the control mechanism. Through the S-factor component of the STPIS, distributors are penalised or rewarded for diminished or improved service performance compared to predetermined targets. Distributors are either rewarded or penalised via network charges two years after the end of each regulatory year because audited performance data would only be available after the regulatory year is completed––hence, the earliest time the S-factor can apply is the year following audited performance data availability.

Consequently, the S-factor outcomes of 2014 and 2015 will apply to prices in the 2016 and 2017 regulatory years respectively.

The revenue at risk cap limits the risk of the STPIS to AusNet Services at five per cent. However, distributors may exceed this cap where there are increases or decreases to the amount of the annual allowable revenue that they can recover between regulatory control periods. The STPIS scheme accounts for the differences to the allowable revenue recoverable between regulatory control periods by making an adjustment to the "raw"[[50]](#footnote-51) S-factor for the last and second last regulatory years of the current regulatory control period (which is applied in the first and second regulatory years of the next regulatory control period) by adjusting the raw S-factor value based on:

the percentage change between the annual revenue requirement in the last regulatory year of the previous regulatory control period and the annual revenue requirement for first regulatory year of the next regulatory control period taken from the post-tax revenue model.[[51]](#footnote-52)

Hence, the revenue at risk cap for the first two years of the next regulatory control period will be adjusted based on the approved revenue at risk cap of the previous regulatory control period.

### Accounting for revenue increments decrements between regulatory periods

A distributor's performance in the last regulatory year of its regulatory control period will affect its revenue in the second regulatory year in the next regulatory control period.

For example, if a distributor has a regulatory control period of 5 regulatory years between 1 July 2007 and 30 June 2012, its performance in the 2011–12 financial year will affect its revenues in the second regulatory year of the next regulatory control period (that is from 1 July 2014).[[52]](#footnote-53)

The STPIS provides a mechanism to account for any step change in revenues (or prices), via, from one regulatory control period to the next. For AusNet services, the ‘raw’ S-factor calculated for the last and second last regulatory years of the regulatory control period (which is applied in the first and second regulatory years of the next regulatory control period) is adjusted in accordance with the following formula:[[53]](#footnote-55)

Where:

* is the sum of the s-factors for all parameters, after application of the s-bank, as determined in equation (3) in the STPIS
* is AusNet Services' approved revenue in the 2016 pricing proposal
* is AusNet Services' allowable revenue in the final determination 2017.

### Closing out of the ESCV’s service performance scheme

Prior to the operation of STPIS from 2011, Victorian distributors were subjected to the Essential Services Commission Victoria’s (ESCV) "S-Factor" service performance scheme.

In order to close out the ESCV’s S Factor scheme, we required the final performance data of the distributors’ for 2010. As this information was not available in time for the final decision of the 2011–15 determination, a final close out was factored into the current determination, requiring a final true-up when the final performance data are available. We will complete the close out calculation in the determination for the next regulatory period (2016–20). The calculation method on how to close out the ESCV’s scheme was set out in our 2011–15 determination. The close-out of the S-Factor service performance scheme will result in an adjustment to AusNet Services revenue in 2016–17.

In 2012 the Victorian government amended the National Electricity (Victoria) Act 2005, to allow us the power to close out the ESCV’s S-Factor scheme.[[54]](#footnote-56) This amendment to the legislation does not alter or limit our approach to close out the scheme.

AusNet Services' revised regulatory proposal stated that we have erred in using the forecast revenue in calculating the close-out of the previous ESCV S-factor scheme. Our preliminary decision applied the forecast revenue that AusNet Services reported to us in its 2014 pricing proposal. As actual revenue for 2014 is now available, we accept AusNet Services' proposal to use standard control revenue from its latest reporting RIN.

In assessing the S-factor true-up, we found that S-factor true up did not account for incorrect call centre data previously provided by AusNet Services in 2013. This final decision has included the correction to account for this input error.

The financial penalty accrued by AusNet Services in the 2006–10 regulatory period in the allowable revenue for 2016–20 regulatory period will be –$16.11 million ($ 2015) in total. This amendment to the legislation does not alter or limit our approach to close out the scheme.

This number has been included in the forecast revenue for the forthcoming regulatory control period by including the adjustment in the ‘revenue adjustments’ row of the post-tax revenue model. [[55]](#footnote-57)

1. AER, Electricity distribution network service providers—service target performance incentive scheme, 1 November 2009. (AER, STPIS, November 2009). [↑](#footnote-ref-2)
2. AER, STPIS, November 2009, cl. 5.3.2(a). [↑](#footnote-ref-3)
3. AER, Preliminary decision, AusNet Services distribution determination 2016 to 2020 Attachment 11 – Service target performance incentive scheme, October 2015. [↑](#footnote-ref-4)
4. Values determined from the most recent Australian Energy Market Operator (AEMO) review of VCR values. [↑](#footnote-ref-5)
5. AER, Preliminary decision, AusNet Services distribution determination 2016 to 2020 Attachment 11 – Service target performance incentive scheme, October 2015. [↑](#footnote-ref-6)
6. AusNet Services, Revised regulatory proposal 2016–20, 6 January 2016, pp. 5(4)–5(6). [↑](#footnote-ref-7)
7. AusNet Services, Revised regulatory proposal 2016–20, 6 January 2016, pp. 5(6)–5(7). [↑](#footnote-ref-8)
8. NER, cl. 6.12.1(a). [↑](#footnote-ref-9)
9. AER, STPIS, November 2009, cl. 2.1(d). [↑](#footnote-ref-10)
10. NER, cl. 6.6.2(b)(3)(iv). [↑](#footnote-ref-11)
11. AER, STPIS, November 2009, cl. 1.5(b)(5). [↑](#footnote-ref-12)
12. AER, Preliminary decision, AusNet Services distribution determination 2016 to 2020 Attachment 11 – Service target performance incentive scheme, October 2015. [↑](#footnote-ref-13)
13. For example the effects of transmission network outages and other upstream events. [↑](#footnote-ref-14)
14. This method outlines how major event days are defined for exclusion from the system. [↑](#footnote-ref-15)
15. AER, STPIS, November 2009, Appendix D. [↑](#footnote-ref-16)
16. AER, STPIS, November 2009, cl. 3.2.1. [↑](#footnote-ref-17)
17. AER, STPIS, November 2009, cl. 5.3.2(a). [↑](#footnote-ref-18)
18. AusNet Services, Revised regulatory proposal 2016–20, 6 January 2016, pp. 5(4)–5(5). [↑](#footnote-ref-19)
19. AEMO, Value of customer reliability review final report, September 2014. [↑](#footnote-ref-20)
20. AusNet Electricity Services, Revised regulatory proposal 2016–20, 6 January 2016, pp. 5(4)–5(5). [↑](#footnote-ref-21)
21. AusNet Electricity Services, Electricity Distribution Price Review 2016-20, 30 April 2015, p. 153. [↑](#footnote-ref-22)
22. AER, STPIS, November 2009, cl. 5.3.1. [↑](#footnote-ref-23)
23. AusNet Electricity Services, Revised regulatory proposal 2016–20, 6 January 2016, pp. 5(4)–5(5). [↑](#footnote-ref-24)
24. AusNet Electricity Services, Regulatory proposal 2016–20, 6 January 2016, p. 248; AusNet Services, AST Distribution Capex Model (Confidential). [↑](#footnote-ref-25)
25. Essential Services Commission (Victoria), Electricity Distribution Price Revie 2006–10, Final Decision volume 1 Statement of Purpose and Reasons, October 2005, p. 88. [↑](#footnote-ref-26)
26. AER, STPIS, November 2009, cl. 3.2.1(a). [↑](#footnote-ref-27)
27. AER, Preliminary decision, AusNet Services distribution determination 2016 to 2020 Attachment 11 – Service target performance incentive scheme, October 2015, pp. 11(15)–11(22). [↑](#footnote-ref-28)
28. AusNet Services, Distribution Annual Planning Report 2015 – 2019, 19 December 2014, p. 72; AusNet Services, EDPR 2016–20 Appendix 7A: Network Capital Expenditure Overview 2016-2020, April 2015, p. 16. [↑](#footnote-ref-29)
29. AusNet Services, 2016–20 Regulatory proposal, 30 April 2015, p. 137; AusNet Services, Vic. EDPR - AusNet Services - IR#003, 24 June 2015; AusNet Services, Vic. EDPR - AusNet Services - IR#003, 2 July 2015. [↑](#footnote-ref-30)
30. AER, Preliminary decision Powercor distribution determination 2016 to 2020 Attachment 11 – Service target performance incentive scheme, October 2015; AER, Preliminary decision CitiPower distribution determination 2016 to 2020 Attachment 11 – Service target performance incentive scheme, October 2015; AER, Preliminary decision United Energy distribution determination 2016 to 2020 Attachment 11 – Service target performance incentive scheme, October 2015. [↑](#footnote-ref-31)
31. AusNet Services made no submission to have its performance targets tightened for the 2011-15 regulatory period because of a 40 per cent increase in the VCR from the 2005-10 period. As such, we consider it is not in the long term interest of consumers to allow it to also benefit from a lower VCR with a softening of its performance targets. We consider this asymmetric treatment is contrary to the NEO and the objectives of the scheme [↑](#footnote-ref-32)
32. CitiPower, Revised regulatory proposal 2016–20, January 2016, p. 400. [↑](#footnote-ref-33)
33. AusNet Services, Transmission Revenue Review 2017-2022, October 2015, p. 162; AER. STPIS, November 2009, cl. 1.5(b)(1). [↑](#footnote-ref-34)
34. When one of the high voltage conductors develops an earth fault, REFCL will supresses the voltage of that particular conductor to prevent a fire from starting. [↑](#footnote-ref-35)
35. Victorian Government, Submission on the Victorian electricity distribution network service providers’ revised regulatory proposals for 2016-20, 14 January, p. 8. [↑](#footnote-ref-36)
36. CitiPower and Powercor, Further submission to the AER regarding preliminary determination, 4 February 2016, pp. 19–21; Jemena Electricity Networks, Victorian 2016-2020 Electricity Distribution Process Review Submission to the Victorian EDPR Process, 4 February 2016, pp.18–20; AusNet Services, Response to submissions on the Victorian EDPR Preliminary Decision, 4 February 2016, pp. 31–32. [↑](#footnote-ref-37)
37. AusNet Services, AusNet Services’ response to submissions on the Victorian EDPR Preliminary Decision, 4 February 2016, pp. 31–32. [↑](#footnote-ref-38)
38. Jemena Electricity Networks, Victorian 2016-2020 Electricity Distribution Process Review Submission to the Victorian EDPR Process, 4 February 2016, p.20. [↑](#footnote-ref-39)
39. Deloitte, Advanced metering infrastructure cost benefit analysis, August 2011. [↑](#footnote-ref-40)
40. AusNet Services, Response to AER Information request - VIC EDPR - AusNet - IR#032, 26 February 2016. [↑](#footnote-ref-41)
41. Victorian Government, Submission on the Victorian electricity distribution network service providers’ revised regulatory proposals for 2016-20, 12 February 2016. [↑](#footnote-ref-42)
42. AusNet Services, Response to submissions on the Victorian EDPR Preliminary Decision, 4 February 2016, p. 32. [↑](#footnote-ref-43)
43. AusNet Services, AER information request – AusNet Services - #048 - Reliability benefits of ACRs and animal proofing (follow-up question), 2 March 2016. [↑](#footnote-ref-44)
44. AusNet Electricity Services, Revised regulatory proposal 2016–20, 6 January 2016, p. 5(4). [↑](#footnote-ref-45)
45. Victorian Government, Submission on the Victorian electricity distribution network service providers’ revised regulatory proposals for 2016-20, 12 February 2016. [↑](#footnote-ref-46)
46. AusNet Services, AER information request – AusNet Services - #039 – STPIS and REFCL devices, 26 February 2016, pp. 1–3. [↑](#footnote-ref-47)
47. Consumer challenge panel, CCP3 Response to AER Preliminary Decisions and revised proposals from Victorian electricity distribution network service providers for a revenue reset for the 2016‐2020 regulatory period, 22 February 2016, p. 28. [↑](#footnote-ref-48)
48. AER, Preliminary decision, AusNet Services distribution determination 2016 to 2020 Attachment 11 – Service target performance incentive scheme, October 2015, p. 11(24). [↑](#footnote-ref-49)
49. AusNet Services, Revised regulatory proposal 2016–20, 6 January 2016, pp. 5(5)–5(6). [↑](#footnote-ref-50)
50. "Raw" refers to the S-factor prior to any adjustments. [↑](#footnote-ref-51)
51. AER, STPIS, November 2009, Appendix C, pp. 33–34. [↑](#footnote-ref-52)
52. AER, STPIS, November 2009, appendix C. [↑](#footnote-ref-53)
53. AER, STPIS, November 2009, Appendix C, pp. 33–34. [↑](#footnote-ref-55)
54. Energy Legislation Amendment Act 2012 (Victoria), s. 10. [↑](#footnote-ref-56)
55. NER, cll. 6.4.3(a)(5) and (b)(5) as amended by Division 4 of Part 3 to the National Electricity (Victoria) Act 2005. [↑](#footnote-ref-57)